

REMARKS

The Office Action mailed June 18, 2002 has been reviewed and the comments of the Patent and Trademark Office have been considered. Claims 1-12 were pending in the application with claims 8-12 withdrawn as being to a non-elected invention. Claim 1 has been amended and no claims have canceled or newly added. Therefore, claims 1-12 are pending in the application with claims 1-7 submitted for reconsideration by the examiner.

Election Requirement

The examiner has elected by original presentation for prosecution claims 1-7. Applicant reserves the right to file a divisional application on claims 8-12.

§ 112 Rejections

Claims 1-7 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for use of the term "may be." In response, Applicant has amended claim 1 to replace "may be painted" with --is suitable for painting--. Applicant notes that claim 1 is not intended to have an active step of painting. Claim 1 is a product claim claiming a molded metal part with an as-molded surface suitable for painting without further processing. Applicant submits that amended claim 1 and its dependent claims are definite and therefore requests withdrawal of the rejection.

§ 103 rejections

Claims 1-5 were rejected under 35 U.S.C. § 103 as being unpatentable over Kalpakjian text book or Marder et al. Claims 6 and 7 are rejected under 35 U.S.C. § 103 as being unpatentable over Marder et al. Applicant respectfully traverses these rejections for the following reasons.

Kalpakjian teaches several casting processes capable of "good dimensional accuracy and surface detail, thus requiring little or no subsequent machining or finishing operations." Kalpakjian at 263. However, Kalpakjian does not teach forming a molded metal part "having **a thickness less than 1 mm** wherein the as-molded surface is sufficiently smooth so that the surface is suitable for painting directly without further processing." Applicant submits that the

textbook may be referring to casting thick sections requiring little or no subsequent machining or finishing operations. However, it is very difficult to cast parts having a thickness less than 1 mm that require little or no subsequent machining or finishing operations by prior art methods. However, the method described in the present application is suitable for forming molded metal parts having a thickness less than 1 mm and which can be painted without further processing. Kalpakjian neither teaches nor suggests a casting method capable of forming a molded metal part "having a **thickness less than 1 mm** wherein the as-molded surface is sufficiently smooth so that the surface is suitable for painting directly without further processing." Thus, Kalpakjian cannot render claim 1 or any of its dependent claims obvious.

Marder et al. teach beryllium-containing alloys of magnesium which can be cast to form parts as thin as 0.019 inches (0.48 mm). However, Marder et al. is silent as to the quality of the surface of such parts. As discussed above, it is very difficult to cast parts having a thickness less than 1 mm that require little or no subsequent machining or finishing operations. Because the surface quality of a cast part is not inherent, the Office Action must supply a secondary reference which provides motivation and teaching of how to mold a 0.48 mm part that can be painted without further processing in order to establish *prima facie* the obviousness. Since the Office Action has not done so, it has failed to meet the burden for a *prima facie* case of obviousness. Therefore, Applicant submits that claims 1-7 are not obvious over Marder et al.

Conclusion

In view of the foregoing amendments and remarks, applicant respectfully submits that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the examiner is invited to contact the undersigned attorney at the local telephone number below.

Respectfully submitted,

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By *Martin Sulsky*

FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5143
Telephone: (202) 672-5300
Facsimile: (202) 672-5399

Michael D. Kaminski
Registration No. 32,904

Martin Sulsky
Registration No. 45,403

Attached: Attachment A

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicant hereby petitions for any needed extension of time.
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ATTACHMENT A

Marked up version of claim amendments made in the Amendment filed

September 17, 2002

1. (Twice Amended) A molded metal part produced by a process comprising the steps of:

introducing the melted material into a first chamber;

allowing at least a portion of the melted material to pass through said first chamber into a second chamber, wherein said allowing step comprises creating a suction in the second chamber to draw the portion of the melted material from the first chamber into the second chamber;

pushing at least a portion of the melted material remaining in the first chamber into said second chamber;

injecting the melted material from the second chamber into the mold; and

forming in the mold the molded metal part, the molded metal part having a thickness less than 1 mm and wherein the as-molded surface is sufficiently smooth so that the surface [may be painted] is suitable for painting directly without further processing.